EU Funding Opportunities - Horizon Europe
## EU funding programmes

### EU-wide collective effort
- **Digital Europe**
  - Strategic capacities: computing, data, testbeds, etc.
  - Advanced digital skills
  - EU-Wide deployment
- **CEF**
  - Broadband and 5G roll out
  - Connecting Communities
- **Creative Europe**
  - Cultural Heritage
  - Media
- **Health**
  - Data Spaces for Health
  - Telemedicine eHDSI

### National regional and local
- **Cohesion**
  - Digital connectivity in white and grey areas
  - Support to enterprises in line with Smart specialisation
  - Digital skills for all citizens
- **Agriculture funds**
  - Making use of Big Data for CAP monitoring
  - Broadband rollout in rural areas
- **RRF**
  - Connect Scale-up Modernise
  - Reskill and Upskill
  - 20% digital

### Financial instrument
- **InvestEU**
  - Leverage private capital for investments in SMEs, research, digital, infrastructure, skills...

### 95.5 billion euros for R&D&I
Horizon Europe Structure

HORIZON EUROPE

SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT*
Exclusive focus on civil applications

Pillar I
EXCELLENT SCIENCE
European Research Council
Marie Skłodowska-Curie
Research Infrastructures

Pillar II
GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS
- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre

Pillar III
INNOVATIVE EUROPE
European Innovation Council
European innovation ecosystems
European Institute of Innovation & Technology*

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA
- Widening participation & spreading excellence
- Reforming & Enhancing the European R&I system
First Horizon Europe results (2021 calls preliminary results)

- Proposals submitted PT
- Projects approved PT
- PT funding (%)

<table>
<thead>
<tr>
<th>Pillar 1</th>
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<td>MSCA</td>
<td>INFRA</td>
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<td>Security</td>
<td>Digital, Industry, Space</td>
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<td>EIE</td>
<td>Widening</td>
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HE | Ranking of PT participation in 2021 calls (preliminary results)
Funding opportunities – Large collaborative projects

HORIZON EUROPE

Specific Programme Implementing Horizon Europe & EIT

Exclusive focus on civil applications

Pillar I
EXCELLENT SCIENCE

European Research Council
Marie Skłodowska-Curie
Research Infrastructures

Pillar II
GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters
- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre

Pillar III
INNOVATIVE EUROPE

European Innovation Council
European innovation ecosystems
European Institute of Innovation & Technology

Widening Participation and Strengthening the European Research Area

Widening participation & spreading excellence
Reforming & Enhancing the European R&I system
Some of the European strategy & Initiatives

- EU Chemicals Strategy for Sustainability
- INDUSTRY 5.0: human-centric, sustainable and resilient
- RESEARCH & INNOVATION TO DRIVE THE GREEN DEAL
- Circular Economy Action Plan
- HORIZON EUROPE
- Action Plan on Critical Raw Materials
- European Union
- European Climate Pact
- SUSTAINABLE DEVELOPMENT GOALS
- SHAPING EUROPE’S DIGITAL FUTURE
- ZERO POLLUTION AMBITION
European Partnerships – Why?

1. They bring together key actors from across sectors to jointly implement R&I roadmaps.

Example:
Photonics21 has developed a roadmap for European photonics for 2021-2027 with more than 1700 companies and research organisations across Europe.

2. They create critical scales of investment to demonstrate radically new innovations across Europe.

Example:
The proposed partnership on clean hydrogen aims to roll-out hydrogen technologies at scale... building on the Fuel Cells and Hydrogen Joint Undertaking’s successful demonstration of zero-emission fuel cell buses and refuelling infrastructure.
## European Partnerships – A New Approach in HE (~50% of Pillar II budget)

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* Calls with opening dates in 2023-24
** Calls with opening dates not before 2022
GOT IT!
...WHERE IS THE FUNDING FOR MY R&D&I PROJECTS?
MULTIPLE FUNDING INSTRUMENTS – From idea to market

Research and Innovation Action (RIA –100% funding rate), TRL 2-6, aiming to establish new knowledge, explore the feasibility of a new or improved technology, product, process, service or solution.

• Innovation Action calls (IA > 60% funding rate), TRL>6 aiming at production and business plans for implementing new, altered or improved products, processes or services. These are close-to-market projects aiming for commercialization soon after the project.
What does it fund?

- All activities directly related to the project and necessary for its execution;
- It will not fund daily activities of entities, nor implementation of specific activities that are not related to the project;
- Human resources, goods and services (inc. travel), equipment, etc, are eligible costs
- Funding rates depend on the type of action and type of entity;
Topics: when

- Most topics from the 2021-2022 WP are closed by now;
- Official publication of WPs for 2023-2024 is **envisaged for December 2022**;
- Topics **have different opening and closing dates**; it changes not only from cluster to cluster, but also within the same cluster
- **Each topic is unique**; they are typically 'once in a life time', i.e. topics normally do not repeat;
- Some topics are related to other topics within Horizon Europe, but in different clusters, or are related to other topics from previous work-programmes
Horizon Europe (2021-2027)

Opportunities – where?
The document for your success!!

Biennial Work Programme
Reading and understanding the topics

**TOPIC DESCRIPTION:**

- **Specific conditions:** (table)
  - Expected EU contribution per project (M€)
  - Indicative budget (budget line, M€)
  - Type of Action: RIA/IA/CSA/Other
  - Technology Readiness Level (TRL)

- **Expected outcome:** consequential effects of project’s outputs, such as uptake, use, and/or deployment of HEU project’s outputs by direct target groups

- **Scope:** sets the context, delineates the problem and specifies the focus

- **Other instructions** (topic specific)

*Each word counts!!*
Horizon Europe (2021-2027)

Opportunities – where?

Let's see some specific topic examples...
SAÚDE
Cluster 1

- Destination 1: Staying healthy in a rapidly changing society
- Destination 2: Living and working in a health-promoting environment
- Destination 3: Tackling diseases and reducing disease burden
- Destination 4: Ensuring access to innovative, sustainable and high-quality health care
- Destination 5: Unlocking the full potential of new tools, technologies and digital solutions for a healthy society
- Destination 6: Maintaining an innovative, sustainable and globally competitive health-related industry
HORIZON-HLTH-2021-TOOL-06-01: Smart medical devices and their surgical implantation for use in resource-constrained settings

HORIZON-HLTH-2021-IND-07-01: Green pharmaceuticals

HORIZON-HLTH-2021-IND-07-02: Development, procurement and responsible management of new antimicrobials

HORIZON-HLTH-2021-DISEASE-04-02: Building a European innovation platform for the repurposing of medicinal products

HORIZON-HLTH-2022-DISEASE-06-02-two-stage: Pre-clinical development of the next generation of immunotherapies for diseases or disorders with unmet medical needs

HORIZON-HLTH-2022-DISEASE-06-04-two-stage: Development of new effective therapies for rare diseases

HORIZON-HLTH-2022-TOOL-11-01: Optimising effectiveness in patients of existing prescription drugs for major diseases (except cancer) with the use of biomarkers

HORIZON-HLTH-20xx-TOOL-5.02: Bio-printing of living cells for regenerative medicine
### European Partnerships

#### PILLAR II - Global challenges & European industrial competitiveness

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** Calls with opening dates not before 2022
Health Partnerships under Horizon Europe

**Institutional Partnerships**
- **IHI**
  - European Partnership for Innovative Health (2021)
- **GHP**
  - Global Health Partnership (2021)

**Co-funded Partnerships**
- **ERA4Health**
  - European Research and Innovation Area for Health (2022)
- **PARC**
  - European Partnership for Chemicals Risk Assessment (2021)
- **PM**
  - European Partnership for Personalised Medicine (2023)
- **RD**
  - European Partnership on Rare Diseases (2023)

**Co-Programmed Partnerships**
- **THCS**
  - European Partnership on Health and Care Systems Transformation (2022)
- **AMR**
  - European Partnership on One Health/AMR Antimicrobial Resistance (2023-24)

**Pandemic Preparedness**
- European Pandemic Preparedness Partnership
Innovative Health Initiative (IHI)

- New Strategic Research and Innovation Agenda
- The Science and Innovation Panel
- One and two stage calls

- The way we’re governed will change.
- The scope of the partnership is broader than IMI as it will cover the entire continuum of care.
- Funding comes equally from the public and industry partners.
- Calls for proposals will be open and competitive.
- Projects started under IMI will be managed by IHI.
- There will be new, specific objectives that align with the EU’s latest health policy strategies.
Innovative Health Initiative (IHI)

Call 1 – Ideas - Single-stage

1. Innovative patient-facing care pathways for patients with neurodegenerative diseases and comorbidities
2. Next generation imaging and image-guided diagnosis and therapy for cancer
3. Precision oncology: Innovative patient-centric, multi-modal therapies against cancer
4. Access and Integration of heterogeneous health data for improved health care in diseases areas of high unmet public health need

Call 2 – Ideas - Two-stage

1. New tools for prediction, prevention and monitoring of cardio-metabolic diseases including secondary manifestations to enable timely intervention
2. Strengthening EU clinical development excellence and innovation attractiveness: Harmonised methodology to promote the uptake of early feasibility studies (EFS)

Official Lunch of IHI
Jan 2022

Publication of draft topics
Apr 2022

Launch of the call
Jun 2022

Call Deadline
One Stage call
Nov 2022
Two stage call
Set 2022

Results
One Stage call
Two stage call
Apr 2022

Results
Two stage call
Feb 2023
Horizon Europe – Cancer Mission

Operational objectives (transversal):

1. Ensure equity and access to knowledge, research and care.
2. Promote innovation, test, validate, demonstrate and upscale solutions.
3. Address childhood cancer and personalised medicine.
4. Engage with the cancer community, citizens/patients and society at large.
Improving and upscaling primary prevention of cancer through implementation research

Strengthening research capacities of Comprehensive Cancer Infrastructures

Pragmatic clinical trials to optimise treatments for patients with refractory cancers

Towards the creation of a European Cancer Patient Digital Centre

Establishing of national cancer mission hubs and creation of network to support the Mission on Cancer
Cluster 1 Team - NCPs for Health

Anabela Isidro
Member of the Board
Delegate and National Contact Point for Health in Horizon Europe
Tel: +351 910 502 378
Email: anabela.isidro@aicib.pt

Isabel Carvalho-Oliveira
Delegate and National Contact Point for Health in Horizon Europe
Tel: +351 910 700 176
Email: isabel.oliveira@aicib.pt

Afonso Duarte
Delegate and National Contact Point for Health in Horizon Europe
Tel: +351 910 499 123
Email: afonso.duarte@aicib.pt

For more information register in AICIB database
https://forms.office.com/Pages/ResponsePage.aspx?id=2d4Jv5tC0103uE9a1sEv54q6qzBu3rLQ4JUdUXjV4zEXWpHVM0J0TUJcT88E6XoHzCQ
CULTURA, CRIATIVIDADE,
SOCIEDADE INCLUSIVA
Examples of expected themes in DEMOCRACY for 2023-2024

1. Digital democracy
2. Gender issues in extremist movements
3. Governance in digital and climate transitions
4. Emotional politics of democracies
5. Public administrations
6. Disruptive changes and democratic governance
7. Deliberative and participatory democratic spaces
8. Culture and democratic participation and political expression

Disclaimer: some of these topics may be considerably altered or eliminated. The indicative budget may be altered.
Examples of expected themes in CULTURAL HERITAGE AND CCIS for 2023-2024

1. Remote monitoring of heritage
2. CCIs and climate transition
3. Digitisation of heritage
4. Cultural heritage in times of change
5. Rural cultural tourism
6. Linguistic capital
7. Social inclusion though arts education
8. New European Bauhaus

Disclaimer: some of these topics may be considerably altered or eliminated. The indicative budget may be altered.
Examples of expected themes in TRANSFORMATIONS for 2023-2024

- Remote working
- Sustainable economic policies
- Migration
- Inequalities in education, training and learning
- Skills and labour shortages
- Housing inequalities
- Inequalities in the green and digital transitions

Disclaimer: some of these topics may be considerably altered or eliminated. The budget may be altered.
Examples of expected themes in TRANSFORMATIONS for 2023-2024

- Loneliness in Europe
- 1. Active labour market policies and high unemployment
- Social services
- Arts, culture, education and training
- The role of social economy
- Education and labour for young people
- New technologies and human skills

Disclaimer: some of these topics may be considerably altered or eliminated. The budget may be altered.
Cluster 2

- **Destination 1**: Democracy & Governance
  - Enhance democratic governance and citizen participation

- **Destination 2**: European Cultural Heritage and Cultural and Creative Industries (CCIs)
  - Safeguard and promote cultural heritage

- **Destination 3**: Economical & Social Transformations
  - Respond to and shape multifaceted social, economic, technological and cultural transformations

**Work Programme**
HORIZON-CL2-2022-DEMOCRACY-01-02: The future of democracy and civic participation

HORIZON-CL2-2022-TRANSFORMATIONS-01-09: Return and readmission of irregular migrants in the EU

HORIZON-CL2-2021-TRANSFORMATIONS-01-06: Towards a new normal? Employment and social impacts of changing supply chains and declining trade intensities
HORIZON-CL2-2022-HERITAGE-01-07: Protection of artefacts and cultural goods from anthropogenic threats

HORIZON-CL2-2021-HERITAGE-01-02: New ways of participatory management and sustainable financing of museums and other cultural institutions

HORIZON-CL2-2022-HERITAGE-01-10: The New European Bauhaus — shaping a greener and fairer way of life in creative and inclusive societies through Architecture, Design and Arts
Cluster 2 Team - NCPs

Natalia Dias
natalia.dias@ani.pt

Margarida Oliveira
margarida.oliveira@ani.pt
INDÚSTRIA
Cluster 4 - Industry

**Work Programme**

**Destination 1**
Climate neutral, circular and digitised production

**Destination 2**
Increased autonomy in key strategic value chains for resilient industry

**Destination 3**
World leading data and computing technologies

**Destination 4**
Digital and emerging technologies for competitiveness and fit for the green deal

**Destination 5**
Open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data

**Destination 6**
A human-centred and ethical development of digital and industrial technologies
HORIZON-CL4-2022-DIGITAL-EMERGING-02-05: 
AI, Data and Robotics for Industry optimisation (including production and services) (AI, Data and Robotics Partnership) (IA)

HORIZON-CL4-2021-TWIN-TRANSITION-01-02: 
Zero-defect manufacturing towards zero-waste (Made in Europe Partnership) (IA)

HORIZON-CL4-2021-TWIN-TRANSITION-01-03: 
Laser-based technologies for green manufacturing (Photonics - Made in Europe Partnerships) (RIA)

HORIZON-CL4-2024-TWIN-TRANSITION-01-01: 
Biological Transformation Of Industries through advanced manufacturing (Made in Europe) (RIA)

HORIZON-CL4-2021-TWIN-TRANSITION-01-05: 
Manufacturing Technologies For Bio-based Materials (Made In Europe Partnership) (RIA)

Smart and Intelligent Manufacturing
HORIZON-CL4-2022-RESILIENCE-01-19:
Advanced materials modelling and characterisation (RIA)

HORIZON-CL4-2022-RESILIENCE-01-12:
Functional multi-material components and structures (RIA)

HORIZON-CL4-2022-RESILIENCE-01-19:
Advanced materials modelling and characterisation (RIA)

HORIZON-CL4-2022-DIGITAL-EMERGING-02-18:
2D materials-based devices and systems for energy storage and/or harvesting (RIA)

HORIZON-CL4-2022-RESILIENCE-01-14:
Membranes for gas separations – membrane distillation (IA)

HORIZON-CL4-2022-RESILIENCE-01-13:
Smart and multifunctional biomaterials for health innovations (RIA)

HORIZON-CL4-2023-RESILIENCE-01-23:
**COMPUTATIONAL MODELS** for the development of safe and sustainable by design chemicals and materials (RIA)
Cluster 4 Team | Industry - NCPs

Sofia Azevedo  
sofia.azevedo@ani.pt

Marta Pinto  
marta.pinto@ani.pt

João Ribau  
joao.ribau@ani.pt
Cluster 4 Team | Digital - NCPs

Sofia Azevedo
sofia.azevedo@ani.pt

Cristiana Leandro
cristiana.leandro@ani.pt

Marta Pinto
marta.pinto@ani.pt

Elisabete Pires
elisabete.pires@ani.pt

João Ribau
joao.ribau@ani.pt
Cluster 4 - Digital

 Destination 1
Climate neutral, circular and digitised production

 Destination 2
Increased autonomy in key strategic value chains for resilient industry

 Destination 3
World leading data and computing technologies

 Destination 4
Digital and emerging technologies for competitiveness and fit for the green deal

 Destination 5
Open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data

 Destination 6
A human-centred and ethical development of digital and industrial technologies
HORIZON-CL4-2021-DATA-01-03:
Technologies for data management (AI, Data and Robotics Partnership) (IA)

HORIZON-CL4-2022-DATA-01-01:
Methods for exploiting data and knowledge for extremely precise outcomes (analysis, prediction, decision support), reducing complexity and presenting insights in understandable way (RIA)

HORIZON-CL4-2022-DATA-01-03:
Programming tools for decentralised intelligence and swarms (RIA)

HORIZON-CL4-2022-DATA-01-02:
Cognitive Cloud: AI-enabled computing continuum from Cloud to Edge (RIA)

HORIZON-CL4-2022-HUMAN-01-03:
Internet architecture and decentralised technologies (RIA)
Increased robotics capabilities demonstrated in key sectors (AI, Data and Robotics Partnership) (IA)

Advanced multi-sensing systems (Photonics Partnership) (RIA)

European Enabling technologies for Beyond 5G/6G RAN disaggregated architectures (RIA)

2D materials-based devices and systems for energy storage and/or harvesting (RIA)

New generation of advanced electronic and photonic 2D materials-based devices, systems and sensors (RIA)
Human centric digitalization

HORIZON-CL4-2022-HUMAN-01-01:
*AI for human empowerment* (AI, Data and Robotics Partnership) (RIA)

HORIZON-CL4-2022-HUMAN-01-14:
eXTended Reality Technologies (RIA)

HORIZON-CL4-2021-HUMAN-01-25:
eXTended Collaborative Telepresence (IA)

HORIZON-CL4-2021-HUMAN-01-26:
Workforce skills for industry 5.0 (RIA)
European Partnerships

PILLAR II - Global challenges & European industrial competitiveness

CLUSTER 1: Health
- Innovative Health Initiative
- Global Health Partnership
- Transformation of health systems
- Chemicals risk assessment
- ERA for Health
- Rare diseases*
- One-Health Anti Microbial Resistance*
- Personalised Medicine*
- Pandemic Preparedness* (Co-funded or co-programmed)

CLUSTER 2: Digital, Industry & Space
- Key Digital Technologies
- Smart Networks & Services
- High Performance Computing
- European Metrology (Art. 185)
- AI-Data-Robotics
- Photonics
- Made in Europe
- Clean steel – low-carbon steelmaking
- Processes4Planet
- Global competitive space systems**

CLUSTER 3: Climate, Energy & Mobility
- Clean Hydrogen
- Clean Aviation
- Single European Sky ATM Research 3
- Europe’s Rail
- Connected and Automated Mobility (CCAM)
- Batteries
- Zero-emission waterborne transport
- Zero-emission road transport
- Built4People
- Clean Energy Transition
- Driving Urban Transitions

CLUSTER 4: Food, Bioeconomy, Agriculture, …
- Circular Bio-based Europe
- Rescuing Biodiversity to Safeguard Life on Earth
- Climate Neutral, Sustainable & Productive Blue Economy
- Water4All
- Animal Health & Welfare*
- Accelerating Farming Systems Transitions*
- Agriculture of Data*
- Safe & Sustainable Food System*

* Calls with opening dates in 2023-24
** Calls with opening dates not before 2022
Electronic and Photonic components and the software that defines how they work

**Deadline Set 2022**

Enhance supercomputing capacity

**Deadlines with different cutoffs: Oct, Nov 2022**

More opportunities

Measurement tech and infrastructures

**Deadlines October 2022**
European Chips Act

The European Chips Act will bolster Europe’s competitiveness and resilience in semiconductor technologies and applications, and help achieve both the digital and green transition. It will do this by strengthening Europe’s technological leadership in the field.
The future is Quantum.

The Second Quantum Revolution is unfolding now, exploiting the enormous advancements in our ability to detect and manipulate single quantum objects. The Quantum Flagship is driving this revolution in Europe.
ESPAÇO
Cluster 4 - Space

Destination 1
Climate neutral, circular and digitised production

Destination 2
Increased autonomy in key strategic value chains for resilient industry

Destination 3
World leading data and computing technologies

Destination 4
Digital and emerging technologies for competitiveness and fit for the green deal

Destination 5
Open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data

Destination 6
A human-centred and ethical development of digital and industrial technologies
1. Foster competitiveness of space systems

2. Reinforce our capacity to access and use space

3. Evolution of Space and ground infrastructures for Galileo/EGNOS

4. Evolution of services for Galileo, EGNOS and Copernicus

5. Development of applications for Galileo, EGNOS, and Copernicus

6. Innovative Space capabilities: SSA, GOVSATCOM, Quantum

7. Space entrepreneurship ecosystems (incl. New Space and start-ups) and skills

8. Targeted and strategic actions supporting the EU space sector

(*) Parceria Co-Programada em “Globally Competitive Space Systems” em processo de formalização.
Espaço nas calls de Não-Espaço

Abertura Calls
De 2022 muitas já abriram!

Exemplo: HORIZON-MISS-2022-CLIMA-01-01: User driven applications and tools for regional and local authorities, and other end users focusing on climate impacts, data and knowledge.
HORIZON-CL4-2021-SPACE-01-11:
End-to-end satellite communication systems and associated services

HORIZON-CL4-2022-SPACE-01-12:
Technologies and generic building blocks for Electrical Propulsion

HORIZON-CL4-2021-SPACE-01-42:
Copernicus Atmosphere Monitoring Service evolution

HORIZON-CL4-2021-SPACE-01-43:
Copernicus Security and Emergency Services evolution

HORIZON-CL4-2022-SPACE-01-41:
Copernicus Marine Environment Monitoring Service evolution
**CASSINI Prizes**

**Prémio** para deteção e remoção de plásticos nos Oceanos

Abriu a 5 de Julho 2022. Prazo até 3 de Março 2023!

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**CASSINI Hackatons**

5th CASSINI Hackaton Datas TBC!

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**CASSINI Business Accelerator**

Open Call for CASSINI Business Accelerator

Implementação a partir de Q3 2022

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**CASSINI Matchmaking**

Próximo Prazo: 10 Agosto 2022

- Empresas
- Corporates
- Investidores
Espaço – Horizonte Europa – CASSINI Investment Funds

CASSINI Seed and Growth Funding Facility

+ Target: €1 billion EU Space Investment Fund dedicated to early- and growth-stage companies
+ Implementation: InvestEU and EIF
+ Objectives: Attract more VC funds & space companies to raise VC financing
+ Requirement: Space Programme provides a budget contribution ("blending") to InvestEU
+ Leverage: EIF adds capital + private funds

Contactar EIF se houver interesse
Cluster 4 Team | Space - NCPs

A equipa

horizonteeuropa@ptspace.pt
Cluster 5 Team - NCPs

Cristiana Leandro
cristiana.leandro@ani.pt

Marta Pinto
marta.pinto@ani.pt

Luis Maia
luis.maia@ani.pt
Cluster 5

Work Programme

Destination 1: Climate sciences and responses for the transformation towards climate neutrality

Destination 2: Cross-sectoral solutions for the climate transition

Destination 3: Sustainable, secure and competitive energy supply

Destination 4: Efficient, sustainable and inclusive energy use

Destination 5: Clean and competitive solutions for all transport modes

Destination 6: Safe, Resilient Transport and Smart Mobility services for passengers and goods
HORIZON-CL5-2022-D3-02-04: Technological interfaces between solar fuel technologies and other renewables

HORIZON-CL5-2022-D3-02-05: Renewable energy carriers from variable renewable electricity surplus and carbon emissions from energy consuming sectors

HORIZON-CL5-2021-D3-03-02: Next generation of renewable energy technologies

HORIZON-CL5-2022-D3-01-14: Thermal energy storage solutions (RIA)

HORIZON-CL5-2022-D3-01-13: Energy system modelling, optimisation and planning tools

HORIZON-CL5-2022-D2-01-05: Next generation technologies for High-performance and safe-by-design battery systems for transport and mobile applications (Batteries Partnership)
HORIZON-JTI-CLEANH2-2022-01-03: Development of low temperature water electrolysers for highly pressurised hydrogen production

HORIZON-JTI-CLEANH2-2022-01-06: Efficiency boost of solar thermochemical water splitting

HORIZON-JTI-CLEANH2-2022-01-07: Bringing green hydrogen MW scale off grid installations closer to technical and financial maturity

HORIZON-JTI-CLEANH2-2022-05-05: Research & Innovation co-operation with Africa on hydrogen

HORIZON-JTI-CLEANH2-2022-01-08: Integration of multi-MW electrolysers in industrial applications

HORIZON-JTI-CLEANH2-2022-06-02: Hydrogen Valleys
European Partnerships

PILLAR II - Global challenges & European industrial competitiveness

- Innovative Health Initiative
- Key Digital Technologies
- Clean Hydrogen
- Circular Bio-based Europe

- Global Health Partnership
- Smart Networks & Services
- Clean Aviation
- Rescuing Biodiversity to Safeguard Life on Earth

- Transformation of health systems
- High Performance Computing
- Single European Sky ATM Research 3
- Climate Neutral, Sustainable & Productive Blue Economy

- Chemicals risk assessment
- European Metrology
- Europe’s Rail
- Water4All

- ERA for Health
- AI-Data-Robotics
- Connected and Automated Mobility (CCAM)
- Animal Health & Welfare*

- Rare diseases*
- Photonics
- Batteries
- Accelerating Farming Systems Transitions*

- One-Health Anti Microbial Resistance*
- Made in Europe
- Zero-emission waterborne transport
- Agriculture of Data*

- Personalised Medicine*
- Clean steel – low-carbon steelmaking
- Zero-emission road transport
- Safe & Sustainable Food System*

- Pandemic Preparedness* - Co-funded or co-programmed
- Processes4Planet
- Built4People
- * Calls with opening dates in 2023-24

- Global competitive space systems**
- Clean Energy Transition
- Driving Urban Transitions

** Calls with opening dates not before 2022
Institutionalised Partnerships (Art 187.)

- Clean Hydrogen - successor of FCH-JU
- Clean Aviation - successor of Clean Sky 2
- Europe's rail - successor of Shift2Rail
- Single European Sky ATM Research 3 - successor of SESAR 2020

European associations supporting these Partnerships

- Hydrogen Europe
- Clean Sky 2 JU
- UNIFE - European Rail Supply Industry Association
- EUROCONTROL
Towards a competitive European industrial battery value chain for stationary applications and e-mobility

1. Contribute to make Europe the 1st climate-neutral continent by 2050

2. Enable the European leadership in the battery industry across the value chain, creating economic growth and jobs in a circular economy

3. Contribute to achieve a zero-pollution ambition for a toxic-free environment
BIODIVERSIDADE E AMBIENTE
Cluster 6 Team - NCPs

Maria João Fernandes
mariajoao.fernandes@ani.pt

Ana Sutcliffe
ana.sutcliffe@ani.pt

Margarida Santos
margarida.santos@ani.pt

Cristina Gouveia
cristina.gouveia@ani.pt

Ricardo Carvalho
ricardo.carvalho@ani.pt
Cluster 6

- **Destination 1**: Biodiversity and ecosystem services
- **Destination 2**: Fair, healthy and environment-friendly food systems from primary production to consumption
- **Destination 3**: Circular economy and bioeconomy sectors
- **Destination 4**: Clean environment and zero pollution
- **Destination 5**: Land, ocean and water for climate action
- **Destination 6**: Resilient, inclusive, healthy and green rural, coastal and urban communities
- **Destination 7**: Innovative governance, environmental observations and digital solutions in support of the Green Deal
Creating smart and attractive tools to enhance healthy and sustainable food provision, eating and treating of food at home

Climate change and food safety: effects of climate change on food safety across food systems

Sustainable organic food innovation labs: reinforcing the entire value chain

Alternative sources for high added value food and/or feed ingredients
Unlocking the potential of algae for a thriving European blue bioeconomy

Circular bioeconomy start-up villages

BIO-BASED coatings, barriers, binders, and adhesives

Novel, sustainable and circular BIO-BASED TEXTILES

BIOMATERIALS DATABASE for Health Applications (CSA)

Safe-and-sustainable-by-design bio-based platform chemicals, additives, materials or products as alternatives
### European Partnerships

**PILLAR II - Global challenges & European industrial competitiveness**

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** Calls with opening dates not before 2022
What is the Circular Bio-based Europe Joint Undertaking (CBE JU)?

A new €2 bn European Public-Private Partnership (PPP), the successor of Bio-based industries joint Undertaking (BBI JU)

- Will contribute significantly to the 2030 climate targets, paving the way for climate neutrality by 2050
- Will increase the sustainability and circularity of production and consumption systems
- Will aim to develop and expand the sustainable sourcing and conversion of biomass into bio-based products
- Will support the deployment of bio-based innovation at regional level, with a view to reviving rural and coastal regions

https://www.cbe.europa.eu/
## 12 topics and their budget

<table>
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<tr>
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<th>Indicative budget (million EUR)</th>
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<tr>
<td><strong>Innovation actions</strong></td>
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<tr>
<td>HORIZON-JU-CBE-2022-IA-01 Biogenic carbon capture and use (CCU) for circular bio-based products</td>
<td>10</td>
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<tr>
<td>HORIZON-JU-CBE-2022-IA-02 Cooperative business models for sustainable mobilisation and valorisation of agricultural residues, by-products, and waste in rural areas</td>
<td>10</td>
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<td>HORIZON-JU-CBE-2022-IA-03 Cost-effective production routes towards bio-based alternatives to fossil-based chemical building blocks</td>
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<td>HORIZON-JU-CBE-2022-IAFlag-02 Alternative sources for high added value food and/or feed ingredients</td>
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<td><strong>Research and innovation actions</strong></td>
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<td>HORIZON-JU-CBE-2022-R-01 High performance bio-based polymers for market applications with stringent requirements</td>
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**Total** | **120**
EU Funding Opportunities - Horizon Europe
## European Partnerships

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